

## Preparation and Socialization of the Education Professoriate: Narratives of Doctoral Student-Instructors

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This study examined the socialization and preparation of future education faculty by exploring narratives of 17 doctoral student-instructors at a large, public, research-oriented university. Data were collected in semi-structured interviews followed by member checks to verify and clarify understandings and interpretations. Participants' experiences were analyzed in a three dimensional inquiry space to identify both common and divergent narrative themes. Findings underscore the importance of faculty mentorship and highlight participants' changing expectations and career goals. Implications emphasize individual and collaborative opportunities for improvement by multiple stakeholders in the doctoral education enterprise, including recommendations for both short and long term curricular practices.

Envied around the world as the backbone of the United States' creativity and scientific innovation, doctoral education in the United States has earned a global reputation for generating knowledge and preparing disciplinary stewards who "understand what is known and discover what is yet unknown" (Shulman, 2008, p. ix). However, the pedagogy of doctoral education in the United States (US) is not without critics. A burgeoning body of literature pertaining to doctoral education has emerged over the last two decades, signaling widespread recognition of multiple problems inherent in the preparation of scholars. Nyquist's (2002) reminder that "revisioning, rethinking, reexamining or re-assessing the Ph.D." (p. 13) had occurred at various points in history included the warning that indifference toward the purpose and future of the Ph.D. may now have greater consequence.

One emergent theme in calls for reform is the need to better prepare doctoral students for careers in academia, reflecting concerns about their socialization to higher education (Austin, 2002; Bieber & Worley, 2006; Nyquist et al., 1999) and preparation for responsibilities as future faculty (Golde & Dore, 2001; Nerad, Rudd, Morrison, & Picciano, 2007; Nyquist & Woodford, 2000). Recent criticism of the quality of teacher education (Duncan, 2009; Levine, 2006) focuses this need on faculty who are responsible for educating teachers. Coupled with recommendations to study academic socialization in particular disciplines (Gardner, 2010; Golde, 2005), exploring the preparation and socialization of the educational professoriate emerges as a compelling and timely topic of inquiry. This study explored teaching and learning experiences of 17 education doctoral students at one US research-oriented institution. Specifically, the study focused on doctoral students who aspired to faculty positions and held graduate assistantships that included teaching responsibilities as the sole instructor.

### Literature Review

As Shulman (2005) noted, understanding a profession requires studying its preparation. Doctoral education is the primary means of preparing future university faculty. Approximately half of 43,000 students who received doctoral degrees from over 400 universities in 2008 were destined for faculty appointments at colleges or universities (Walker, Golde, Jones, Bueschel, & Hutchings, 2008). Doctoral education, as the "academy's own means of reproduction" (Shulman, 2008, p. xi), is uniquely positioned to demystify the academic profession, to bring about positive change in faculty preparation, or to perpetuate problematic academic paradigms.

According to the Survey of Earned Doctorates, between 13% and 15% of doctorates awarded over the past ten years in the US were education degrees (Fiegener, 2009). Compared to students in the arts and sciences, doctoral students in education are often older, self- or employer-financed, and less likely to work as graduate assistants (Choy & Malizio, 2002; Fiegener, 2009). About 74% of education doctoral students work full-time and 71% are enrolled in part-time study. During the 1999-2000 academic year, only 17% held some form of assistantship, most of which were teaching related (Choy & Malizio, 2002). These atypical characteristics present challenges for doctoral programs tasked with socializing and preparing future education faculty.

Socialization has been described as the process by which individuals learn and adopt the knowledge, skills, values, attitudes, and expectations of a group in a particular community or organization (Corcoran & Clark 1984; Staton & Darling 1989; Van Maanen 1976). Ultimately, the socialization process leads to the development of a sense of what Merton, Reader, and Kendall (1957) term the *professional self*, an identity that encompasses characteristics of the group. Staton and Darling (1989) described socialization as a process

of role identification by which newcomers construct professional identities as they interact with other group members.

Discussing socialization in the field of higher education, Tierney (1997) suggested that socialization is the process through which new faculty come to understand and create meaning of the culture or sum of activities that exist in individual institutions and the profession as a whole. Through direct and indirect interaction with members of an institution and the larger profession, the newcomer learns "how to behave, what to hope for, and what it means to succeed or fail" (Tierney, 1997, p. 4). Socialization to higher education is an important part of the preparation of future faculty as well. Doctoral students begin to socialize into higher education and academic careers during doctoral education (Austin, 2002; Baird, 1990; Corcoran & Clark, 1984; Golde, 2000, 2008). Describing socialization of doctoral students specifically, Austin (2002) noted that "most students must make sense of the academy and its values, its expectations of them as graduate students, its conceptions and definitions of success, and the models of professional and personal life that it offers" (p. 103).

Doctoral education involves a number of simultaneous socialization processes, including those related to academic life and the profession (Golde, 1998, 2005). During these processes, students may come to question their ability and desire to continue to pursue graduate education and to follow subsequent career paths (Golde, 1998). Nyquist et al. (1999) noted that doctoral education experiences of future faculty "mold the values that will profoundly affect the way they approach their faculty lives" (p. 27). The socialization of doctoral students is therefore of central importance to the doctoral education experience. As Tierney (1997) observed, the process can either perpetuate or reform problematic cultural norms in higher education.

However, doctoral students often progress through degree programs without any focused or systematic socialization to the academic profession and graduate with a limited understanding of faculty roles and responsibilities (Austin & McDaniels, 2006; Bieber & Worley, 2006; Gaff, Pruitt-Logan & Weibl, 2000; Golde & Dore, 2001; Nerad, 2004; Nerad et al., 2007). Noting the frequent lack of a systematic induction into academia, Golde (2008) pointed to faculty as the primary agents of doctoral students' socialization to higher education and later observed that "doctoral students are expected to infer from years of observation how to be a faculty member" (p. 18). Similarly, Austin (2002), and Bieber and Worley (2006) found that students rely on observation of faculty behaviors in socializing to academic careers. The lack of structured and intentional mentoring and support for doctoral

students may result in preparation for future faculty roles described by Cyr and Muth (2006) as "hit or miss" (p. 232).

Student-faculty interaction lacks deliberate efforts by faculty to contextualize scholarly work within a larger professional landscape and is unlikely to yield a well-rounded socialization to the increasingly diverse spectrum of faculty responsibilities. Several authors have suggested that preparation of future faculty should be more intentional in terms of both planned educational experiences and socialization to values, norms, and expectations of the profession (Austin, 2002, 2009; Austin, & McDaniels, 2006; Braxton, Luckey, & Helland, 2002; Gale & Golde, 2004; Walker et al., 2008). An intentional socialization to faculty roles and responsibilities is important both to doctoral students' preparation for roles as future faculty members and to addressing problematic cultural norms in graduate education noted by Braxton et al. (2002). Intentionality by faculty in the socialization of doctoral students is therefore a crucial element of doctoral education practice. Teaching practices such as modeling, coaching, scaffolding, articulation, reflection, and promoting the transfer of learning have been described as "practical and effective ways to strengthen the socialization of future scholars" (Austin, 2009, p. 173); however, any deliberate effort by faculty to prepare doctoral students for future roles and responsibilities can be considered a form of intentional socialization.

Tracing the history of faculty engagement in teaching, service, and research through the late 20<sup>th</sup> century, Boyer (1990) redefined scholarship as comprising varied forms of intellectual work including application, discovery, integration, and teaching. Since the 1990s, expectations of faculty have broadened. A variety of stakeholders "have increasingly recognized that scholarship can take a variety of forms" (Austin & McDaniels, 2006, p. 51). The traditional goal of doctoral education, the production of researchers, is no longer sufficient.

Critics of doctoral education argue that reform is needed to produce socially engaged and responsible scholars whose work spans the multiple creative endeavors envisioned by Boyer (1990). Nyquist (2002), describing the importance of reinventing the Ph.D., observed the "range of skills needed to function effectively has increased, especially for those who will occupy leadership positions" (p. 14). Research on faculty rewards has found a continued preeminence of research in academia (Braxton et al., 2002, 2006; Glassic, Huber, & Maeroff, 1997) and concluded the need to incentivize more varied scholarship. A number of authors have suggested that graduate education itself must reform and renew scholarship by instilling knowledge, skills, and values for a broader range of

work in future faculty (Austin & McDaniels, 2006; Braxton et al., 2002, 2006). Applegate (2002) boldly urged doctoral education to “prepare faculty not to accommodate higher education as is, but to be agents of change” (p. 2).

One approach to socializing and preparing future faculty is to engage doctoral students in academic work (Austin, 2002; Walker et al., 2008). Tierney (1997) claimed that faculty work, beginning in graduate school, is “the primary arena for organizational socialization to occur in a processual manner” (p. 8). Working alongside seasoned faculty in authentic settings exposes graduate assistants (GAs) to the norms, values, and responsibilities of the academic profession and provides practical professional experience doing real faculty work. Whether responsible for teaching, research, or general service activities, GAs often have opportunities to observe and engage in academic work that are not available to their peers.

However, graduate assistantships also present concerns. Austin (2002) notes “assistantship roles sometimes are structured more to serve institutional and faculty needs than to ensure a high quality learning experience” (p. 95), and experiential and financial benefits aside, GAs teaching undergraduates often enter the classroom with little preparation for teaching (Diamond & Gray, 1987; Golde & Dore, 2001; National Association of Graduate-Professional Students, 2000; Nerad et al., 2007; Nyquist et al., 1999), leading to circumstances in which “the least experienced faculty teach the least experienced undergraduates” (Woodrow Wilson National Fellowship Foundation, 2005, p. 18). Despite these concerns, little evidence of widespread progress in preparing and supporting GA teaching has been reported in the literature. Even less research has addressed experiences of GAs teaching undergraduate courses as primary instructors rather than as teaching assistants. As full-time students engaging in authentic faculty work, doctoral student instructors (DSIs) are well positioned for socialization to and preparation for academic careers.

### Mode of Inquiry

The socialization and preparation of future faculty is a compelling quandary for doctoral educators. DSIs are well-positioned to learn about faculty roles firsthand, yet the literature offers conflicting visions of the professional development and experiential learning promised in theory and provided in practice. How are DSIs socialized to higher education? How do opportunities to work as faculty prepare students for faculty roles upon graduation? How do teaching experiences affect their development as educational scholars, and what do these experiences mean to

aspiring university faculty? This study asked these questions of DSIs who were pursuing educational doctorates and aspired to university faculty positions upon graduation.

Higher education scholars have increasingly embraced qualitative inquiry as they explore the experience of students, faculty, and other stakeholders. Keller (1998) suggested acceptance of “a new pluralism of research methods” (para. 32) in service of developing “a deep understanding of the messy academic world” (p. 36). Clark (2008) cautioned researchers to “be wary of the mean and other measures of central tendency that squeeze out the truth of diverse stories,” and instead advocated the use of case narratives, suggesting, “meaningful research into the ways of academia must delve into a multitude of small worlds that are very different” (p. 306).

Whereas “we seem to have no other way of describing ‘lived time’ save in the form of a narrative” (Bruner, 2004, p. 692), personal constructions of meaning are most suitably explored using a narrative mode of inquiry that views stories as a direct expression of experience. Dewey (1938) conceived experience as a contextual construction of continuity and interaction, situated in place, and this understanding as described by Clandinin and Connelly (2000) informs the use of narrative inquiry in this study. However, while narrative inquiries most often appear as highly personalized in-depth case studies of individual participants, presented here are social narratives derived from cross-case analysis of participants’ educational stories. Identifying themes that cut across storied experiences, both shared and divergent narratives are explored, offering a glimpse into the common meaning that participants construct of their experiences as DSIs.

Participants were recruited from a large, public, research-oriented university in Southwest USA. Having obtained permission to conduct the study from institutional review board, DSIs were identified using information from the university directory, assistance from department chairs and administrative staff, and through networking with other participants. All DSIs who were enrolled in full-time study of educational doctorates, who taught undergraduate courses as primary instructors, and who aspired to university faculty careers were invited to participate via email. All respondents were included in the study. Participants represented a range of educational specializations in both Ed.D. and Ph.D. programs and varying degrees of teaching experience. Most DSIs were candidates when interviews took place, but four were in the earlier stages of doctoral programs. One recent graduate, who met the inclusion criteria but graduated prior to the research interview, was also included in the study.

A total of 17 DSIs (12 female and five male) participated in semi-structured interviews. The initial

sample was expanded using network sampling, wherein participants were asked to identify other DSIs who met the inclusion criteria and might be willing to share their perspectives—either similar or dissimilar—about their doctoral education experience. These DSIs were then invited to participate in the study and identify additional prospective participants in turn. This process continued until DSIs' storied experiences became redundant, and neither yielded new themes nor clarified existing themes. Audio-recorded interviews took place in private settings of participants' choosing and lasted from 58 to 90 minutes. Interviews were later transcribed and analyzed along with field texts written during and immediately after the interviews. Member checks were used to clarify responses, verify interpretations, and deepen understandings following the initial data collection and again in the final stages of data analysis. Follow-up communication took place in face-to-face meetings, telephone conversations, or email.

Data were analyzed using John Dewey's understanding of experience, operationalized by Connelly and Clandinin (1990), as an analytic framework. Clandinin and Connelly (2000) further developed this experiential framework in teacher education research using a three dimensional narrative inquiry (3DNI) space within which meanings of storied experiences may be examined. Using the 3DNI space, participants' experiences were analyzed in terms of their personal-social interactions to understand inward and outward social encounters and their impact on experience; the temporality of experiences moving backward and forward in time (i.e., Dewey's continuity); and the context of the place (i.e., situation) in which those experiences occurred. Smith's (2010) visual representation of the 3DNI space terms the intersection of interaction, temporality, and place as the "narrative moment" that represents the meaning a participant ascribes to their experience (see Figure 1).

Individual narratives of DSIs were first analyzed using the 3DNI space, after which each participant was asked to clarify meanings and interpretations. Rather than delve deeper into individual meanings to produce thick characterizations of individual storied experiences, texts were next analyzed together to identify themes that cut across DSIs' storied experiences. This cross-case analysis proceeded according to Strauss and Corbin's (2008) description of open and axial coding, and guided by the 3DNI space. Texts were coded into narrative themes that were then linked together to identify similarities and connections among storied experiences. As common narrative themes emerged, DSIs were again consulted in final member checks to deepen understanding and gain additional insight into social narratives. This analytic process allowed storied experiences to be

explored in the 3DNI space in conjunction with a more traditional analysis that helped identify narratives common to all DSIs.

## Findings

Two common themes relevant to DSIs' socialization to higher education and preparation for faculty roles emerged in participant narratives: (a) the importance of faculty mentorship, and (b) changing expectations and career goals. Mentorship played an influential role in DSI socialization experiences and in preparing future faculty for careers in research universities, but was less helpful in terms of more varied institutional contexts and roles. As DSIs progressed through their programs, teaching and learning experiences, interactions with faculty, and socialization led to changing expectations of academic careers and professional goals.

### The Importance of Faculty Mentorship

Participants ascribed great importance to mentored practical experience. Working closely with mentors was considered a significant advantage, and DSIs repeatedly emphasized the value of guided application of knowledge to their development as researchers. One participant indicated that without the practical research experience she gained with her mentor she "would have been just plodding along and taking classes, and would only have reading knowledge of research." Developing the confidence and competence to conduct research prepared DSIs for capstone experiences as well:

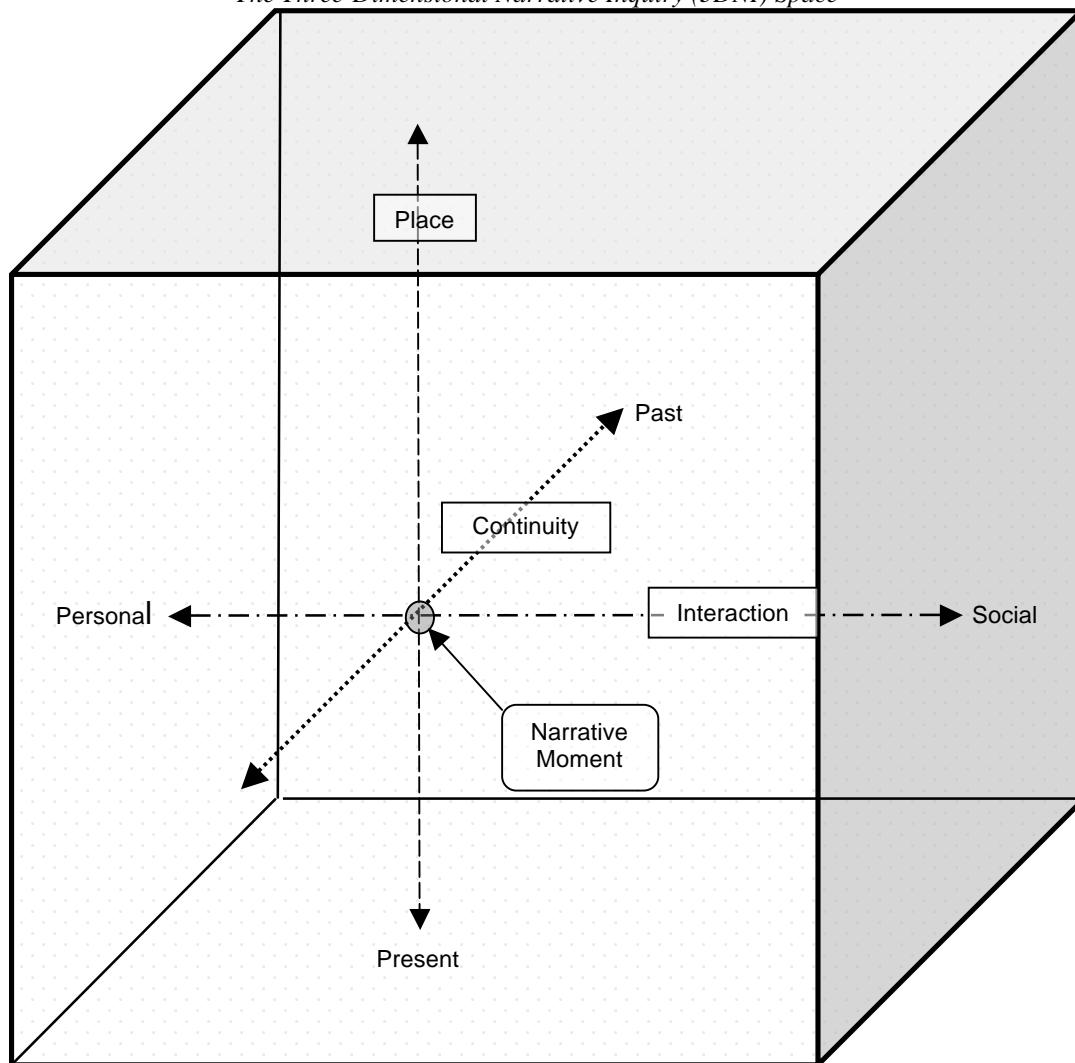
I am involved in four different research projects right now, with four different faculty members . . . that's the biggest benefit I see for me. It's the teaching some, but the benefit is research because that will prepare you for your dissertation.

Mentored work on research, publications, and grant-related activities were valued for the marketability they promised graduates. A former DSI attributed a successful initial job search to having been involved in faculty research and grant projects:

While being a teaching fellow gave me great teaching experience, balancing that while working on the grants and knowing how to do research was very beneficial to me. Those experiences working on the grants—I can guarantee you—is why I got the tenure-track job the first semester right out of school.

Participants who were involved in mentored research expressed a sense of growth toward

Figure 1  
*The Three-Dimensional Narrative Inquiry (3DNI) Space*



*Note.* This figure illustrates interaction, time, and place as an analytic framework for exploring narrative meaning.

increasingly independent scholarship. They came to their programs hoping to become university faculty, and through interaction with experienced scholars in authentic academic contexts they made steady progress toward their goals. Faculty mentorship helped them navigate doctoral programs, capstone examinations, and dissertations while developing credentials on the path toward faculty careers. However, mentorship in other forms of scholarship was less forthcoming. DSIs reported minimal guidance from departments or faculty related to their teaching responsibilities, courses included little practical preparation for post-secondary teaching, and neither structured support nor mentorship were consistently available to prepare them for current and future faculty roles:

I was pretty much told: "This is your class, do whatever you want as long as you cover the objectives." They gave me a sample syllabus to follow and things like that, but there wasn't a lot of direction, procedures, and details.

Evaluation and constructive feedback were similarly inconsistent:

There are a lot of expectations that we are going to do what we are supposed to do, and not a lot of evaluation of our teaching, people checking up on us, or guidance. If you have questions or you need help, you basically have to go seek it out yourself.

Only one participant came to his position with previous experience teaching at the post-secondary level. Others acknowledged the different learning styles and needs of adult learners, but drew primarily on K-12 teaching experience to inform instruction. DSIs had anticipated more support in learning to teach adult students at a university:

I had a lot of teaching experience but that doesn't mean I know how to transfer my elementary experience to adult learners, that doesn't mean I know how to design a course that meets once a week versus everyday, which is different from public school setting. . . . I feel like my first semester here, I think I did a good job, but I could have done much better job had I been given more guidance and mentorship from the faculty.

Prior teaching experience was a valuable foundation, but DSIs faced challenges transferring their expertise to adult learners and navigating institutional procedures:

Undergraduate students are very different from [middle school students]. Luckily, I had a course I felt comfortable with, but approaching college students, that was my challenge. . . . I didn't even know to go online to get my class roster until my fellow student showed me. I realized later that there are several worksheets [related to] what we should do . . . it was all there, but no one bothered to tell me about it.

Some participants consulted with faculty who had taught courses previously; however, the assistance received from faculty varied in quality and quantity. The absence of structured support meant DSIs were responsible for finding their own answers. One exasperated participant shared, "I have been going back and forth, just trying to get answers. Everybody is so busy . . . they don't really look at us too much." Another described finding teaching mentors as a piecemeal process of ferreting out support and guidance as it was needed and available:

[Your] mentor is the person you go to with questions: You go to one person for one thing and another person for another thing. I've been very lucky that I am not shy about asking. But for those who are shy, it will create a problem. There is nobody out there for you unless you go and ask for it, and by the time you finish navigating your way, it may be too late. The semester might be over, and your students might not be happy with you.

A working relationship with a single faculty member led to more positive socialization to higher

education and academic work for DSIs, but those relationships proved difficult to forge. Several participants formed successful research partnerships with faculty mentors; however, their development as university instructors was uniformly self-directed. DSIs who were able to build mentoring relationships reported enlisting faculty with common research interests by maintaining a presence on campus, demonstrating their abilities, and being assertive about their own needs.

Maintaining a presence on campus created opportunities to assist faculty and demonstrate their abilities as burgeoning scholars. In fact, presence was considered more useful in developing mentoring relationships than their common teaching responsibilities: "It had to do with me being around . . . [my teaching position] probably played a bit of a role because it opened the door, but once you are in it, you have to sell yourself to the faculty." Cultivating a reputation as "serious and capable" was perceived as critical for recruiting faculty mentors. One participant shared lessons he had learned, advising new DSIs to "make sure the faculty see you, make sure they know you are there, and make sure you are seen as someone who can effectively finish [assigned] tasks."

Assertiveness was also considered essential for developing mentoring relationships. DSIs with faculty mentors indicated it was important for students to approach faculty about their own learning needs if they expected assistance. One participant, who had assisted several faculty with research, described the need for initiative and tenacity in asking faculty for help:

Most of us who received help have done so because we sought it out. We were persistent enough to wait until we got the help we needed. If we couldn't get it from this person, we got it from that person.

Another participant highlighted identifying and nurturing mutually beneficial student-faculty relationships as an effective strategy in his own search for mentorship:

I attached myself to those who are doing the same research I am doing in order for me to get the help I need. So, here, I could help you with this, can you help me with this? So, it's a give and take. I get to help faculty with their research, and then I ask them for their ideas on my own research.

Although initially timid about approaching faculty, DSIs grew more comfortable asking for help as working relationships developed. As one DSI explained, faculty were often perceived as too busy for to ask for assistance: "I'm not saying if I knocked on the door and really needed help they wouldn't help me.

It's just the general understanding that their time is very precious and they are not available so much to students." Ironically, it was by making themselves available to faculty that DSIs birthed opportunities for mentorship. Taking the initiative was a crucial step in building mentoring relationships that would serve DSIs' scholarly and professional development.

Opportunities for meaningful learning experiences related to other faculty roles depended on faculty relationships as well. Several DSIs expressed a desire to be more involved in service activities such as committee membership, curriculum development, and program evaluation. One participant, having served on a faculty search committee, attributed the opportunity to familiarity with department faculty: "A lot of doctoral students are here part time . . . too inconsistently to have that kind of relationship. So for me I think the whole experience has been about the people I know." Lacking assigned office space, another DSI stayed completely "off the radar." He visited campus to take courses and to teach courses, did not develop working relationships with faculty, and summarized his role in the functional terms of university expectations: "Technically I am a [DSI], but in reality I am an adjunct. I use the words interchangeably."

### **Changing Expectations and Career Goals**

Participants entered doctoral programs for both personal and professional reasons, citing enjoyment of teaching and aspirations to faculty positions at universities as the primary purposes for pursuing educational doctorates. They shared a desire to make an "exponential difference" by teaching in colleges of education, and the doctorate was perceived as a path to simultaneously advance their careers and contribute to the quality of education as a whole:

The last several years I was in a masters program . . . I realized that I really like teaching. I like the research aspect as well, but the thing that influences education the most is the quality of teachers. So I thought, "I'll be able to impact so many more children by preparing qualified teachers."

However, time in an authentic academic context revealed to DSIs unanticipated realities of higher education; their expectations and career goals became more dynamic as they progressed.

A jarring initial realization was that the primary focus of the university was not teaching, but research. Working alongside faculty, observing the time and resources that were dedicated to research, and noting the lack of support for teaching practice led to the conclusion that "teaching is a secondary or even tertiary

focus of higher education." As one participant noted, "The primary motivation of the university is getting research grants, getting publications, and getting money in the door." Another DSI elaborated:

Teaching is more of a secondary goal than I thought at first, but it takes a while to understand that. It's more about your research ability and funding for the university than it is about teaching. Initially, I really did think that it would be more about students, but being around campus, that's what it taught me.

Although participants were disquieted with the discovery, it was considered an important lesson to learn early in their programs as evolving career plans were still taking shape.

DSIs also observed that faculty work was far more demanding than they had imagined. If teaching was not emphasized by faculty, it was recognized to be the result of manifold additional responsibilities for which they were held to greater account. Interacting with faculty, participants came to understand teaching as only one of numerous academic responsibilities, the remainder of which often took precedence. One participant recalled an informal conversation with a mentor that validated previous observations she had made of faculty:

I've had a couple of instructors tell me—and I have noticed it before they said it to me—about how professors are pulled in many directions. I had one tell me that 10% of his work time—only 10%—was devoted to teaching. I've had others mention similar things. That is concerning to me.

Another participant believed faculty workloads affected students throughout the university:

Faculty are so busy that they don't have time for [teaching]. I think that filters through the adjuncts and teaching fellows down to the undergraduates. Students' needs are pushed aside so faculty can get ready for conferences and research and grant proposals.

As teachers, DSIs were socialized to institutional culture from the inside. The focus on research and funding at the institution quickly became evident and was often interpreted generally as the broader culture of the academy.

Although participants were uniformly surprised by the lack of emphasis on teaching, this discovery meant different things to different participants. The participant who had hired into a tenure track faculty position upon graduation accepted the paradigm as a professional reality:

You want to say that everything is equal and balanced, but you can ask any of the tenure track faculty: If you are a stellar researcher and okay teacher, they're going to hire you, but you can be a stellar teacher with no research experience and you're not going to get a tenure track position. You may get an instructor or clinical position, but you're not going to get a tenure track position. That's just the fact, whether we like it or not.

Others were less accepting, and some were openly critical of what they considered an overt neglect of the university's teaching mandate. Disappointment emerged as a theme among participants who believed teaching to be the primary mission of higher education:

Teaching students, having students who really understand something when they get their degree is so far down the totem pole of the important things to do today at a university that I find it appalling, absolutely appalling . . . it seems like, not just here, but it's very pervasive at universities . . . it is not nearly the objective and scientific push toward excellence I was looking for.

DSIs were quick to point out "concerns about universities in general, not just here," in terms of both service to society and personal fulfillment. DSIs tended to generalize their experience at the university to other higher education institutions, assuming their experiences represented broader trends across higher education that they would necessarily encounter as future faculty.

Practical concerns about finding employment in a competitive university job market were central for others. A new DSI felt overwhelmed by the need for research and publication prior to graduation and brooded on securing a faculty position: "I worry about how this affects me . . . How do I prepare myself to be equal to [other job applicants] once I graduate? What do I need to make sure that I can do all these things?" Prior to her DSI position, she had not considered these needs. "That's something you get by being up here [on campus]. You may not realize that just taking classes." Enlightened but dismayed, she lamented the lack of time to conduct research, write, and publish. She exemplified the struggle DSIs faced upon learning the full scope of the faculty role.

Some participants adapted to university norms by increasing their research productivity, but others rejected the academic culture they observed and began to entertain new career options. One student grew less interested in faculty careers over time: "When I started, there was nothing I wanted to do other than to teach at a university, but now . . . I could see myself not doing that." A socialization to faculty roles and

responsibilities that de-emphasized teaching led several DSIs to conclude that higher education was, overall, a poor match for the sense of teaching purpose that compelled them to pursue academic careers. As participants progressed through programs, some refocused their scholarship on discovery while others reconsidered future career aspirations.

I came to this [thinking that] getting a Ph.D. was about learning to teach and learning to be a professor. Well, it isn't. It has nothing to do with it. If anything, it is almost antithetical to learning to teach. I enjoy research and I like the research I do, but my real love is teaching. That's what I really want to do . . . That has been the biggest difficulty for me over the last year or two, considering how much I gave up to get into something that I don't think I can respect anymore.

When asked what he plans to do upon graduation, he noted:

I very well may seek a job as a visiting professor somewhere, or go back to industry with my new knowledge. If I can find a college where I care about the college and the people there are sensible and have real world experience, I may do that. But I don't really know right now. Right now I am focused on [graduating]. That's my primary goal.

As participants reflected on the meaning of their new understandings of higher education, they developed different strategies for moving forward in their careers. Some adapted, preparing for careers as research faculty in what they hoped were prestigious universities. Others turned to industry or other educational settings, mourning the perceived loss of imagined teaching careers, as educational journeys begun to "make an exponential difference" gradually progressed toward uncertain tensions about future careers. In either case, faculty roles were not what DSIs expected. Influenced by interaction and context, their expectations and career goals changed over time.

### Summary of Findings

Mentorship played an influential role in DSIs' evolving identities and narratives as future faculty. Entering an academic context in which research was a clear faculty priority, they initially struggled to make sense of their roles and responsibilities. All DSIs were socialized to the norms and values of an institution seeking to maximize research productivity and lacked faculty models outside of the dichotomous conception of faculty as either teachers or researchers; however, their narratives began to diverge in the presence or absence of mentorship.

Interactions with mentors provided insight into faculty roles, professional capital to help compete for faculty positions, and opportunities to build a foundation for capstones and future scholarship as they matured into independent scholars. DSIs were socialized and prepared for faculty roles as researchers through learning experiences with mentors. DSIs without mentors lacked developmental experiences outside of the curriculum and their own self-directed teaching and learning. They were not systematically prepared for any faculty role and were socialized to support roles as teachers in similar research institutions. For these participants, faculty positions commonly came to be perceived as either unappealing or unobtainable.

## Discussion

Doctoral student instructors in this study were socialized to higher education contexts that prioritize research. Doctoral coursework was perceived to offer little practical preparation for the responsibilities graduates would face as university faculty. Opportunities to engage in authentic scholarship prior to capstone experiences stemmed from research-oriented faculty relationships rather than intentional elements of the curriculum. DSIs learned to teach on their own and were generally uninformed in service activities. There was no mention of scholarships of application or integration, nor of teaching as a form of scholarship, by any participant in the study.

Mentoring relationships described by participants in this study resemble what Golde, Bueschell, Jones, and Walker (2009) call *apprenticeship* and identify as “the signature pedagogy of doctoral education” (p. 54). Recognizing both “connotations of indentured servitude” the term carries and common problems associated with mentorship in the academy, Golde et al. note the need for collaborative apprenticeship *with* several mentors rather than submissive apprenticeship *to* a single mentor and “reciprocal relationships in the service of learning” (p.55). Narratives in this study highlight several potential issues with mentorship in doctoral education. As a primary means of socializing doctoral students to scholarship and preparing future faculty for responsibilities of today’s professoriate, mentorship that is neither systematically implemented and evaluated nor incorporated within a broader curricular context may prove problematic.

Doctoral students benefit from exposure to multiple faculty mentors with a broad range of scholarly expertise, including teaching mentors (Golde et al., 2009). Yet even with multiple mentors, an emphasis on research at universities that offer doctoral programs can narrow faculty scholarship such that students lack suitable mentors for faculty roles outside

of research. Austin (2002) pointed to research universities as the epicenter of doctoral education. Braxton et al. (2002) identified graduate education as a long-term hindrance to changes in faculty socialization toward a more Boyerian view of scholarship. It is this broader conceptualization of scholarship that is necessary to prepare future faculty for roles and responsibilities across varied institutional contexts. Findings of this study underscore the concern that doctoral students may find it difficult to recruit faculty mentors for the teaching and service activities that Austin (2002) notes are emphases of institutions in which most future faculty will be employed.

Mentorship that facilitates increasingly independent scholarship and “the opportunity to learn from failure” is crucial in the education of future scholars, but “occurs largely because of the luck of the draw, not because of a purposeful, assessable, transparent approach to doctoral education” (Walker, 2008, p. 37). While participants with mentors did feel fortunate, they played a proactive role in developing mentoring relationships by making themselves available to assist with faculty research and assertively negotiating assistance with their own scholarship. These findings support Barnes’ (2005) finding that mentorship is influenced by student research topics, and they further suggest that mentorship may in some cases depend on what students offer faculty in return. Learning to teach was more self-directed, informed by what Golde et al. (2009) call the “sink-or-swim theory,” in which “students are thrown into their initial teaching experience or research assignment and thrash their way to completion of the assignment with little guidance” (p. 54). As Austin (2002) found, doctoral student mentorship can be inconsistent: not all students have mentors. Without structured curricular opportunities for guided scholarship and formalized means of promoting mentorship, doctoral students remain likely to be apprenticed *to* faculty, based on personal characteristics and scholarly interests, in the service of faculty needs.

Faculty make a difference in students’ socialization to their profession (Noonan, Ballinger, & Black, 2007). As DSIs prepare for faculty careers they become, as Austin (2002) notes of all doctoral students, “keen observers and listeners” (p. 104). Institutional contexts in which mentors’ primary responsibility is research can lead faculty to unwittingly model institutional values to doctoral students. The lack of mentorship also communicates faculty priorities to students who are unable to enlist support. Findings of this study support Golde’s (2008) suggestion that learning by observation often leads to unintentional and inappropriate modeling. While faculty modeling may well reveal academic realities of particular settings, observation alone is unlikely to situate those realities in the broader context necessary for doctoral students to make informed

choices about future faculty careers. DSIs' socialization may even be considered appropriate in terms of having reproduced the prevailing values and norms of research universities; however, a more comprehensive socialization to the professoriate requires a conscious effort by faculty to broaden doctoral students' exposure to varied forms of scholarship.

Socialized to teaching and research in a research-oriented university, participants viewed faculty career prospects from the same perspective. Golde (1998) identifies questions graduate students face as they are socialized to the academic profession, two of which are, "Do I want to do this work?" and "Do I belong here?" (p. 56). Education narratives shape the answers to these questions and to implied futures as aspiring faculty. Participants shared teaching narratives of frustration and isolation, of teaching invisibly in the background. Despite elements of indentured servitude, research apprenticeships featured developmental experiences that progressed to collaborative and independent scholarship over time. Absent more systematic forms of socialization, high-potential emerging scholars such as the participants of this study will be compelled to revisit goals before their faculty careers have even begun. Considering the challenges facing US higher education in the 21<sup>st</sup> century, faculty who seek to make a difference are valuable human resources to develop.

As others have concluded, doctoral students often graduate with little understanding of the breadth of faculty roles and responsibilities across varied institutional contexts (Austin, 2002; Golde & Dore, 2001). A recent study also suggests that faculty advisors do not perceive it as their responsibility to help students think through the full range of faculty work (Barnes & Austin, 2009). DSIs in this study were socialized to faculty careers through selective mentorship, observation, and unintentional modeling. While research universities may depend on graduate students to function, they also have responsibilities to students and to higher education; both stakeholders require more comprehensive preparation of future faculty.

Preparation and socialization of scholars at research universities, for research universities, presents problems for higher education as a system. Institutions that grant the doctorate comprise only about 10% of colleges and universities in the US, yet they prepare faculty for institutions that are commonly focused on teaching and public service (Austin, 2002). A narrow focus on research in doctoral education serves neither traditional teaching and service missions of higher education as a whole nor the need for comprehensive conceptualization of scholarship at research universities. Without an explicit curricular emphasis on socializing students to varied contexts and careers in higher education, and lacking mentorship in faculty

responsibilities outside of research, doctoral programs risk a failure to meet the diverse faculty needs of American higher education.

### Implications and Recommendations

As others have suggested (Walker et al., 2008), long term change requires a cultural shift within higher education. Research universities must embrace their responsibility to prepare more broadly skilled scholars to serve the teaching, application, and integration needs of a wide range of higher education institutions. Certainly, there is a persistent need for such reform, yet there are also actions stakeholders at each level can take to improve doctoral education quality in the short term, and although this study focused specifically on DSIs, recommendations may also be useful for other GAs and for doctoral students in general. Additionally, the findings of this study point to a number of opportunities to advance the understanding of doctoral education through further research, and it is to this topic that we turn first.

Experiences of DSIs in this study suggest that mentorship is a crucial element of doctoral education that deserves further exploration. Quantitative inquiry into the relationship between mentorship and doctoral program outcomes would provide further evidence upon which policy and practice decisions could be based. Furthermore, the role that learner characteristics such as assertiveness and on-campus employment played in DSIs' access to mentorship suggests that an investigation of relationships between mentorship and these learner characteristics might serve to inform program admission policies and aid in student advising. Educational practices, both those associated with individual faculty behaviors and curricular models in doctoral education, should be further explored to determine how they affect student-faculty engagement, mentorship, and socialization. Finally, longitudinal study of student mentorship, socialization, and their longer term affects on student career trajectories may reveal valuable insights that only become evident as faculty progress in their careers.

More generally speaking, both qualitative and quantitative research in varied contexts and specific disciplines are needed to explore the particularities of different fields of study and higher education settings. Institutions classified as doctoral/research universities emphasizing teaching rather than research as their primary mission comprise an interesting potential research setting; such universities graduate large numbers of doctoral students in the United States, yet existing research on doctoral education focuses mainly on research-oriented universities. Methodologically, the use of narrative inquiry to explore the social narratives of students, faculty, administrators, and others in higher

education holds promise as a way to contextualize institutional policies and practices in terms of their meaning to human experience.

Students should be encouraged to be proactive and assertive with regard to their learning. Findings of this study, as well as others (Austin, 2002; Walker et al., 2008), suggest that personal characteristics such as assertiveness, self-efficacy, and locus of control are the primary means by which students might improve their own doctoral educational experience across institutional and disciplinary contexts. Personal characteristics of doctoral students play a role in their educational experiences: self-directed and motivated learners should recruit faculty mentors with appropriate expertise to meet their changing needs as they progress through doctoral programs. Students and faculty have the capacity to be natural allies; however, building mutually beneficial relationships may well depend on student initiative. Doctoral programs should seek to make students aware of the importance of these relationships and of their own agency in developing them. Specific study of relationships between personal characteristics and educational outcomes is also warranted, and it may lead to better informed doctoral education practice and policy.

Mentoring relationships should serve both faculty productivity and student learning while incorporating developmental learning experiences that allow apprentices to develop into partners as doctoral students become increasingly independent scholars. Mentorship cannot begin and end with research, but it must instead include multiple forms of scholarship that will serve the needs of a diverse and complex higher education system. Students can assist faculty beyond their research duties, but an element of educational intentionality is crucial in student-faculty relationships. As primary agents of socialization to higher education, faculty should remain wakeful to behaviors they model and the lessons students learn by observation. Both faculty and students benefit from apprenticeship, as do public stakeholders in doctoral education. The higher education enterprise should strive to further develop prevailing mentorship paradigms to include more intentional, collaborative, and meaningfully productive work and outcomes for all parties.

Collectively, faculty are encouraged to build multiple perspectives of scholarly work and academic professions into formal curricula. This study joins others finding the lack of structured opportunities for authentic learning experiences problematic in the socialization and preparation of future faculty. Curricula should include developmental experiences that resemble actual work of faculty in diverse academic contexts. Guidance from seasoned faculty with varied expertise is an important element of such experiences. Given the time constraints of typical

doctoral faculty, collaborative projects that bridge forms of scholarship may serve to maximize efficiency, build student capacity for collaboration, and promote the development of a community of scholars.

Several problems may be addressed by simply providing information. Doctoral students who assume they will be actively engaged by faculty may be unaware of the need to be assertive regarding their own learning needs, and academic cultures that anticipate student proactivity may prove particularly problematic for students whose cultural backgrounds define such behavior as disrespectful or inappropriate. Socialization to norms and expectations can begin in orientations and student handbooks that provide information and serve as foundations for further socialization to higher education. Periodic workshops and seminars focused on professional development and career exploration might then be offered throughout the doctoral experience to broaden students' perspective of academic professions. This specific recommendation also represents potential for graduate schools to play a more prominent role in the education of doctoral students, especially in relation to multiple faculty roles and forms of scholarship.

As the nucleus of doctoral education, research universities are responsible for cultivating scholarly talent to serve higher education across an array of institutional contexts. While research may represent a more familiar scholarly endeavor, many universities require scholars with greater versatility. Here we join a litany of voices calling on universities that prepare future faculty to more meaningfully evaluate, reward, and value teaching, mentorship, and a wide range of scholarship. Administrators of research institutions might also promote more comprehensive socialization and preparation of future faculty by empowering graduate schools to address topics that cut across professional and disciplinary boundaries in professional development offerings. In the end, student-faculty interaction is the lynchpin of doctoral education. Institutions that value doctoral education and seek to graduate scholars with relevant skills must find ways to promote consistently meaningful and comprehensive connections between students and faculty.

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